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Introductory Address,

BY

JAMES TRUMAN, D. D. S.,

PROFESSOR OF DENTAL HISTOLOGY AND OPERATIVE DENTISTRY

IN THE

Pennsylvania College of Dental Surgery,

BEFORE THE CLASS OF 1873-'74.

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ADDRESS.

The earth in its revolution has brought us again face to face with the duties of the hour. The evolution of thought and the genesis of new ideas mark each new epoch, and in proportion as these tend to the elevation and advancement of civilization, does the world progress.

While we may view mankind in the mass, we must, if we would judge correctly, occasionally resolve the whole into its separate parts, and thus analyzing, we can predict the general result. As no chain is stronger than its weakest part, so no community, no state, no nation is stronger than its component elements. If we would rear a superstructure that will resist the action of the destructive forces, as wise builders we will make sure of our foundation, examine every stone, every piece of wood, every cross-beam and every support, that no flaw may weaken the whole. When our building rears aloft, as an evidence of our care, we feel that the work has been well done, and that, however strong the elements may dash upon it, the power will be impotent in destruction. These reflections belong to this hour. We are here to lay this foundation. The first stone has yet to be placed in position, and before this is done it is well to hesitate, to introvert our thoughts, and to correctly view the difficulties

of our surroundings, that we may the more readily plan to overcome as we meet them. We are here to-day a part of the great surging mass of humanity. As we build, so will we bear our proportion of the fabric. In so far as our aspirations reach out to the new and untried, just so far will we aid the great wave of thought to dash and wear away the rocky headlands of ignorance. "Youth," says Hazlitt, "regards death, old age, as words without a meaning, a dream, a fiction, with which we have nothing to do." I would say youth regards itself immortal. In this thought and the aspirations proceeding from it, the world reaps its greatest advantages. Middle life brings with it its doubts, its aspirations chilled by experience, its outlook on the decrepitude of later years, but youth believes not in these things. They are the shadowy spirits that, if they fit at all across the mind, disturb not the roseate contemplation of the future. Years change all this, but these early hours of life are the great moments when opportunities are to be grasped and the spirit truly works in the world, of it and for it.

We gather to-day at the feet of our Alma Mater. We enter here to renew our life, to pledge each to the other a renewed activity in our field of labor. The harvest is ripened ready for the mower. Are the laborers ready to reap the full grains? Are you prepared to work that your minds may be filled with the rich treasures that are the results of the labors of the past centuries? Have you counted the cost, and are you willing to devote every moment from this, the rising of your sun, until the twilight of the later day to reaping this knowledge? Are you ready to enter a life of self-denial, to leave the things that men, and young men especially, most delight in, and bow yourselves by day and by night to the accomplishment of this object? If so, it is well, and in the end you will find you have gathered the harvest, and it will be greater than the richest inheritance, for it will be self-earned.

Colleges are the result of just such unselfish work. Various motives

actuate men. Some are ruled by ambition, some by a desire to benefit their fellows, others by sordid motives. The first two largely have to do with the erection and sustentation of dental colleges. The love of gain has yet to enter their portals. It however matters but little to what we ascribe the motives. Colleges to-day, are a fixed fact in the curriculum of science. But it has not always been thus. When we go back to the early periods of dental history in this country, when colleges were not, when dental science was in a crude and unshapely condition, when selfishness and ignorance ruled the hour, when the profession, as a profession, had no existence, we can readily feel that these were indeed dark days of unpleasant memory. But when we recall the fact that nothing springs at once bound from birth to maturity, that it is only by a slow and laborious process that anything is developed, whether it be applied to the physical or intellectual, in a word, that nothing ever was created perfect or could be without a violation of known law, we need not look back with blushing cheeks at our beginning. Thus has it ever been! As the years rolled on, the crudities of the early life were gradually replaced by a more healthy state of things, and in due course of time men of ability adopted the art of dentistry as a profession. The natural result of this was association, and from association grew the college. Knowing the many difficulties that environ a college of the present, difficulties that frequently chill the energies and dampen the enthusiasm of the most ardent, I marvel that men like Harris in dentistry and Bond in medicine, could be found thirty-five years ago, willing to risk so much on such a frail barque. But these were positive men, and it is your positive men that pioneer the world. Such characters never stop for expediency, never wait for flattering opinions of concurrence from others, but, convinced of the right, march directly forward to its accomplishment. To use the language of one who knew Dr. Bond well, "he was in no sense a negative man; he did not listlessly or apathetically drift into the current of

events ; he did not float upon the tide of popular fancy or popular fashion, but was fearlessly pronounced in all his relations and positions. Having investigated a proposition, having apprehended the line of duty, he pursued that line with Spartan courage and Spartan constancy, looking alone to the reward of a good conscience, and to the approval of that Master whose name he daily honored.” When his colleagues opposed his intended efforts to elevate a system of quackery into a profession, he had but one answer—that of duty. He saw the possibilities, and, like a great-hearted religious philosopher, he put his shoulder to the wheel and succeeded. He possessed a rare mind, cultivated in science, thoroughly educated in classic lore, and a brave expounder of the Divine law as he understood it. Two rare men in the centuries passed away when Bond and Harris entered the eternal activities of life in another world. They have both gone, but have left us the full riches of their labors, and upon that sure foundation we build to-day. Baltimore College was a new revelation. It opened up other avenues for thought. Men began to widen their outlook. The old absurd idea that dentistry consisted of extracting teeth, making artificial work and filling was being gradually outlived. A broader field was being opened. The collateral sciences were evoked, and dentistry became, as it is to-day, an out-growth from all science, receiving its vitality from all, and will eventually stand equal to any in usefulness to the world.

When, also, I recall the early condition of this, our College, compare the teachings of to-day with those of that period, good as they were, the fact remains that, in the flight of twenty-one years, there has been a change, almost an entire change, and that for the better. The teachers then were without experience; they were almost blind leaders of the blind, save that they were possessed of that practical knowledge that then went to make up the cultivated dentist. I remember, with gratitude, the labors of these devoted pioneers in dental teaching in this city ; but while

the retrospection may be of value, our duty is to the present and to the possibilities of the future.

This brings me to the consideration : What constitutes a dental college ? My ideal may never be reached, and I shall not tire your patience by speculating on what may prove but the flimsiest gossamer of a dream : but there is a practical side to the question that should be considered. I am not prepared to admit that any of the schools are quite up to the requirements of the age, and I hold this to be as applicable to medicine as dentistry, and possibly to a larger extent. All human endeavors fall far short of desires. This must ever be the case, and is undoubtedly true of our specialty. The early training of its members has led to isolation. To be sure we number some thirteen thousand practitioners of all grades, and have dental societies many ; but is there that feeling, that fine devotion to the profession as a profession that there should be, that single hearted aspiration for its greatest good ? I know there is not. This only comes through generations of college training. It can only be fully arrived at when every individual has acknowledged fealty to some institution, and turns with reverential love to his professional mother. Dentistry has not this, hence we are yet floundering amid strong feeling for on the one hand, and prejudice against on the other. The man outside of college walls has no love for the man in it. Recrimination follows, antagonisms are fomented, chasms grow wider, and the members of the profession, instead of harmoniously working for one common end, are becoming more and more separated, and the result must culminate in a radical change. Colleges, perhaps, represent this condition of affairs. The stream has not risen higher than the fountain. This is not as it should be. I would not be misunderstood here. I do not mean that the educational system is not above the crude outcroppings manifested in many quarters ; but I mean that they have not developed and never can develop to their fullest capacity, as long as they are dragged down by a host of the prejudiced and

ignorant. This lack of combined influence is felt at the centres of instruction. We are not only deprived of sympathy, but are debarred that substantial aid that would place our schools on a sure foundation, and enable each to furnish still greater facilities for the acquisition of knowledge. I marvel that so much has been done and is being done under such discouraging circumstances. Your presence here to-day is evidence that the question is slowly regulating itself; but so slow that many generations must pass away, under the present system, before we can be called a professional unit. When that time comes college buildings will rear their architectural fronts in proud attestation of professional honor and professional enthusiasm. Until then we must be satisfied with more humble belongings, ever remembering that the outward seeming is not always an indication of internal beauty.

The duty of colleges, it seems to me, is something more than mere centres of instruction. They should be the leaders of the people. They should breast the waves of ignorance as the steamer those of the ocean, and leave the *logs* to wallow in the trough of the sea. They should concentrate their intellectual forces and make them a power to draw all behind them. That they are doing this, to some extent, is true; but more of liberality and justice is wanting. As I before remarked, we have an incubus of ignorance in our so-called profession. It is the dead weight to all endeavor. To free the country of this, dental colleges should unite and draw these men from their hiding places, and force them, by a cultivated public sentiment, to go through a proper collegiate course or pass an examination, and if found qualified, grant a certificate to that effect. Dentistry is peculiar in its conditions. Arising from humble beginnings at the outset, the practice was confined to the few possessed of sufficient ingenuity to overcome some of the difficulties unaided. The work performed, imperfect as it was, met a great want, and the demand for their services was immediate and constant. This influenced

others to abandon the watchmaker's bench, the silversmith's shop, to throw aside the plane and the plow and launch forth into this supposed El Dorado. The result was two-fold—disappointment in regard to wealth, in most cases, and an immense increase of practitioners. This state of things still continues. The impossibility of men attending colleges who have been for twenty or more years in practice, must be apparent to every reflecting mind. This impossibility arouses jealousies and antagonisms to dental education as unfortunate as it is injurious. The difficulty and the remedy have claimed some attention, but by no means to the extent its vital importance deserves. It must be met, if not now, in the near future. You may be called upon to solve this problem, and hence the necessity of calling your attention to it. As a graduate of a dental school, I hold that we should lay aside any lofty assumptions, and grapple the difficulty in the best and only way attainable.

We may divide dentists into three classes. The first of these comprises those about to enter, or have entered upon the study. These must necessarily enroll themselves as collegiates and pass through the curriculum. The *second* are those who have been in practice twenty years or over. These should be offered the privilege of an examination by the faculties of colleges, and, if found qualified, granted a special diploma. The *third* class should then be forced by legislative action into the colleges, or failing in this, abandon the practice of the profession. The attempt to legislate in advance of this action results in great wrong oftentimes, and will, to a large extent, fail of producing the desired effect. Three states, Ohio, New York and New Jersey, have passed laws to meet this difficulty. These give the power of examination to boards of censors. They may be qualified, but who is to judge? Their ability may never have been tested in any direction. Their prejudices may largely warp their judgment. They are open to other influences which I need not mention. Above all,

such legislation tends to lower the standard rather than to elevate it. It matters not how short a time an individual has been in practice prior to the limit allowed by the law, he is entitled to this so-called examination, and with his certificate he stands equal to the graduate in everything but knowledge. This ought not to be. You should set your influence firmly against any such effort of demoralization. The young man in practice can make sacrifices to attend college. It is his duty to do it, and in the end his largely increased reputation will repay him four-fold.

This same difficulty is world wide. England, France and Germany are suffering to day from the same incubus. In the former the question is being discussed, and if we may judge from the quotations I make from an address by a distinguished member of our profession, Mr. Charles Tomes, of England, they are likely to meet it there in a more liberal spirit than has been manifested here.

After a description of the fee system of Great Britain, he says: "A change is being gradually effected in this matter, and as systematized dental education increases every year the number of skilled operators, doubtless the fees will become more strictly proportionate to the time and labor expended. But in effecting such a change, as indeed in everything else, we are hampered by the existence of a large body of unqualified men styling themselves dentists, and we are, unfortunately, not yet able to obtain any legislative interference to prevent such from practising." * * And what is still more to be regretted, there are some few capable and respectable practitioners who do not hold any diploma at all. * * Before the year 1859 no degree in dental surgery had been established in England, so that our dentists were either fully qualified surgeons or held no qualification at all. As must always be the case on the introduction of any important measure, a considerable amount of fierce opposition was raised up. * * The result of this opposition was the formation of the

self-styled college of dentists, which undertook the work of education and the granting of degrees. * * When our diploma was first instituted, the college of surgeons granted a period of grace, during which *those already in practice would be allowed to offer themselves for examination*, WITHOUT PASSING through the prescribed curriculum, and as a large number were opposed to the whole movement, this period of grace was allowed to elapse by a certain number. * * Of course, it is impossible for them now to leave their practices and go through the necessary course of studies, so that they are, by their own original mistake, excluded from the status of recognized members of the profession. Now, however, that the success of the degree is an established fact, they have petitioned the college of surgeons to open the gates to them once more. * * Inasmuch as the regeneration of dentistry is not a thing to be done in a day, the more we can enroll on the side of culture and education the stronger our cause will be. I think that the petition might be advantageously granted. * * We may rest assured that in the long run that class of practitioners who best fulfill their duties will thrive to the exclusion of the incompetent, and that therefore given sufficient time, the qualified men will become numerous enough to satisfy the requirements of the community. For the operation of that great truth known as the law of survival of the fittest—a law which is at work as much in slowly improving political and social organizations as in modifying and bringing into fitness the forms of animals, will sooner or later bring about this result. But the unaided action of the laws of nature is as slow as it is sure, and it daily falls within the province of man's intelligence to step in and hurry on in its details, at least, that slow course of improvement which we term civilization. * * The demand for dentists has in a degree been sudden, too sudden for the want to be supplied by men thoroughly suited to the work, so that their place has been taken to a large extent by mere charlatans. * * As soon as we can confidently assert that there are a sufficient number of

duly educated and certificated dentists to meet the requirements of the community, the sooner we urge the necessity of legislative interference the better; but premature action must lead to failure, which would long bar the road to further progress."

If there had been such a union of colleges as I have described when Pennsylvania College of Dental Surgery inaugurated a similar movement, there would be a much better feeling to-day. But the motives of this college were distorted, the faculty traduced, and finding ourselves in a storm of misapprehension and invective, we abandoned the unprofitable contest. But the question must and will be met. While larger pre-science may not be ours, we do claim that our move in this direction was the beginning of a broader and grander field in dental ethics than had heretofore been attempted.

The complaint is very general, especially among students, that the curriculum is absurdly extended and entirely out of place in dentistry. The average student can see no grand results in cell doctrine, nor can he build a practice on comparative anatomy, nor can he see any money in the muscles of the lower extremities, nor patients in Materia Medica, nor common sense in the nomenclature of chemistry: but he can see very much in filling and placing teeth. These are his Alpha and Omega, and this his idea of dentistry. It would not seem to require much time, or large and elegant surroundings to impart this. We do not so understand it, and you who think this will not so understand it when you have settled down to the duties of your profession. Dentistry, as I before remarked, embraces a portion of almost every science. It is a conglomerate, based on the wants of men. Being this you must necessarily bring to bear upon it all the knowledge possible, and to do this you must first acquire it. If there was no such thing as use in connection with it the fact still remains that a professional man without general intelligence is a

walking absurdity—a disgrace that admits of no excuse—a fraud upon a confiding public that needs exposure.

When the pioneer in a new country opens up the soil to the light of heaven, clears away the overgrown vegetation and prepares it for the grain, does he always find a rich yield for his labors? No. For the coarse vegetation of rudimentary life it is all sufficient, but for the food of advanced civilization it is not fitted. Science must be evoked; the earth must be reduced from its wild state, its cold condition, and advanced by constant training to bear a refined cultivation. This requires long and faithful adherence to known law. So you, as dentists. You come to us crude, with minds in chaos, but possibly with all the elements for a more cultivated growth. It is only by adding here a little and there a little, gradually arousing the dormant faculties, taking from the older and more advanced sciences that which may be needed for your more perfect development, that we may be able to send out to the world minds cultivated, not, it may be, to their fullest extent, but with an intellectual basis that must, if kept in close training, bear rich fruit. Intellectual culture is the great want in our profession. In times past, though not equal to the present, we were not deficient in the manipulative skill, but as we have so recently originated from the wilderness, we have had to contend with the dregs of that outlying civilization common to all new worlds. As this is true of countries, so is it equally true of all departments of active thought. As you would make a miserable failure in translating the gentleman farmer to the wilds of Kansas, so you would equally fail in basing the origin of a new profession on the abilities of men of large cultivation in science. The ruder and minor details necessary to be met and conquered, are not readily grasped by men of advanced thought. It needs the pioneer, the uncultivated, the man of one idea, the laborer in the vineyard, and not the æsthetic taste that enjoys the luscious fruit in its beauty. Our profession in following this known law has simply performed its duty. It

has builded well, and now gradually the men of the shop must give way to those of the intellectual forces, that the fruit of the new time may be equal to, and fitted for, the period. In reverent thankfulness we bow to the great work of the past, but in kindling enthusiasm we meet the present, and in joyful anticipation eultivate the waste places, that the future may exhibit a professional maturity worthy of the respect and honor of all cultivated minds. When a distinguished member of our profession from England made the public remark that we had no cause to be proud of our position as dentists, I felt that he had not risen to a proper appreciation of it. He had been translated too soon from the classic atmosphere of Oxford, and was out of his element. I regard it otherwise. I am proud of the profession, proud of its work in the past, proud of its present advanced position, but still prouder of its possibilities in the future. If we regard it merely in its mechanical sense, what greater boon has been conferred on the world? The artificial substitutes for the natural organs have done more than medicine to prolong life, to prolong comfort, to prolong intelligence itself! You may ask, how can this be? The loss of teeth is an injury by no means as fully appreeiated as it should be. Their loss involves derangement of the digestive function, and derangement there involves the whole system, and particularly the harmonious action of the seat of intelligence—the brain. The legitimate result follows—in the loss of the one the derangement of the other. In simple terms, with good masticating organs a prolonged intellectual vitality is the result. Imbecility is reduced to a minimum. Is that a fanciful theory? Not at all. I think it must have been observed by all now arrived at middle life, the almost universal retention of mental powers in the aged. A weakening of these may be present, but total imbecility is rare, even up to ninety years. If this be true, and who can doubt it, then am I not correct in asserting that the mechanical department alone does even more than medicine itself? That may give a longer lease of

life, but this not only accomplishes that, but superadds increase of happiness and a lengthened intelligence, enabling the old to depart with a clear brain for that undiscovered country—the heir-loom of all humanity. In proportion, then, as the mechanical inserts substitutes, just in that proportion have we an increased value given to that branch that preserves the natural organs and keeps them in their line of duty to advanced periods. To perform this work, to approach every day nearer to perfection, we must invoke the good genii of science and penetrate the very holy of holies, and draw from thence all that may be made available to fit us for the work. To this we dedicate this hour.

The differences in men's minds are great. Born of widely diverse nationalities, they inherit marked peculiarities of a national character. These again are sub-divided into family inheritances and idiosyncrasies; but over and above all the purely human predominates—the desire to excel.

To assert that there is no such thing as genius, would be to bring all to the dead level of one common nature. The Shakspeares, the Goethes, the Miltos are born, they are not made. The crucible of the alchymist never brought forth gold; base imitations, many. So, by no training, however good, can genius be developed. Something more than mediocrity may be reached. This in one generation may produce genius in the next. One of the older writers defines genius as “some strong quality in the mind, answering to and bringing out some new and striking quality in nature.” I would say that it is an *inherent power, capable of itself of producing great results, and susceptible of unlimited extension.* With the ordinary faculties, there is a limit beyond which the mind fails to go. Genius flashes in the firmament of intellectuality, illuminates the world for the moment, but the power is felt through the ages. Genius leads the world. Mediocrity is the gleaner. Genius pilots through the labyrinthian mazes of an obscure civilization, mediocrity follows afar off in

dazed contemplation of unapproachable greatness. Genius grasps the inner life of things, while mediocrity never rises to the dead level of the external. Genius leads mind by the force of its own power, mediocrity waits until all the world moves that it may travel in company. Genius may be erratic and uncomfortable, so are the comets; but the former, like the latter, herald the new world, the created thought, the new revelation, the great inspiration. Genius, in its transcendent manifestations, can be counted through the ages; but genius in a modified form runs through all society, all nations, and to its modeling effects the world attains to its greatest aesthetic and scholastic excellence.

But we are not called to genius. Mediocrity, however humble, requires development. The world must live. As I before remarked, the perfection of one age becomes, through inheritance, the greater perfection of the next. Therefore, with no other incentive, let us work that humanity may progress.

As neither you nor I may come under the definition of genius, let us so labor that we may accomplish all that our mental powers are capable of, and thus perform the mission assigned us. While there may not be an ability to accomplish great things, there may still be ample intellectual force to reach elevated positions and become a power, a leader of the people; or failing in this, at least to occupy an honorable position in the profession of your choice. Let not the apparent great gap that may exist between your achievements and those of others intimidate you. You cannot attain great elevations by any balloon-like process; all must be acquired, if at all, by slow, pains-taking efforts. These in time will conquer all the rocky places, and the position you are eventually to fill will be reached. Genius may attain the Mt. Blanc altitude of intellectuality, and is never satisfied with less. Mediocrity grovels at the base, and is equally content. Your duty is to something more than the latter, and with excelsior as your motto, you may approach the former.

We know little of the possibilities of our inner life. Shakspeare little dreamed of his exalted posthumous fame, when as Will Shakspeare he trod the boards equally as well famed as an excellent actor and as an author, unapproached and unapproachable. Goldsmith, when he enjoyed his boon companions in the London coffee house, could have had no conception of the fame awaiting him as the author of the *Vicar of Wakefield*! And our own Hawthorne, whilst delving amid the dry tomes of Salem custom house, little thought of disentombing the “*Scarlet Letter*” and fame second to no writer of this new world. We have our Columbus in discovery, our Newtons in science, our Dantes, Miltons and Tassos in poetry, our Dickens in that subtle analysis of character unapproached. Their names are legion, and the results of their work our present civilization. Did these great minds culminate in a day? Not by any means. Fame followed deeds, and these were the result of work superadded to genius.

Combined with qualifications for the work to be performed an ambition to excel is of paramount importance. Ambition may be a generous enthusiasm to be better than other men, that the power thus attained may be used to broaden the fields of knowledge, and thus add to the sum of human happiness; or it may be a sordid and mean spirit that looks only to the elevation of self, a love of power for self-aggrandizement. I need but call your attention to the two classes to enable you to draw the illustrations from the great bodies of men. The devotees of science working away secluded from the busy haunts, economizing the hours as the miser his gold, searching for facts with an insatiate longing that can never be fully satisfied; but all unconscious whether men condemn or applaud. Such a character, it seems to me, borders on the God-like. On the other hand, the selfishly ambitious courts display, and in vanity struts the stage of life, never forgetting self, never neglecting the means to an end. Such a man may advance himself and others, but the motive

power is base, and can only result in dwarfing the individual. Let ambition be generous. Let it sow that others may reap. Let it gather from the ends of the earth the rare exotics that all may enjoy an equal proportion of fragrance. Thus does ambition ennable, and the author, the statesman, the scientist and divine, each leaves the world better for having been in it.

The power of continued and prolonged application is essential to the overcoming of any obstacle. This is a truism, but men forget it, and especially students. The royal road to knowledge is their philosopher's stone, ever looked for but never found. The faculty to acquire is not equally possessed; but there is compensation even here, for the slow plodder is most generally a thorough worker. Work is the only true alchemist. It transmutes dry facts into intellectual conceptions, and intellectual conceptions aggregated mark cultivation. Science is a hard task master. Daily and hourly must the new food enter the mental circulation, and as each atom adds to atom, thought and acquirement grow easy and the outlook becomes wider. This is education. The man may forget half of the requirements of youth, but the additions made to brain-force are never lost.

A blind subserviency to the opinions of others is a vast evil in all conditions of society, but becomes in a profession a bar to progress. Regard and deference to, so-called, authority is proper and essential to the good government of all conditions of men, but it should never go beyond certain limits. We are too much given to asking for authority, to leaning on the investigations or the skill of other men. The self inquiry, what do others think or what will they think? is ever uppermost. No man or woman can ever be fully developed until they assert their individuality. Strictly speaking, science admits of no authority, yet we constantly lean on this or that man and take his assertions for truth, and are only undeceived when in the advance of knowledge these supposed facts are

entirely overthrown by some more modern investigator, who in time may have to give way to others. Is there such a thing as absolute truth? Undoubtedly, and it becomes our duty to make every effort to find it. That many things have been absolutely demonstrated needs no assertion by me; but the fact still remains, that in the vast region of unexplained problems we are only traveling towards but have not arrived at absolute demonstration. Authorities, then, are many. Every little circle has its great man whose word is law, and woe unto the aspiring youth who dares to dispute his conclusions. The crown of martyrdom will surely be his, and this he will wear until he can demonstrate his deductions to the conviction of the many. Authority, neither past or present, should be recognized, as such, unless it is based on unshaken truth.

The best portion of the days of aspiring youth are lost in battling with the depressing influence of conservative age. Respect for years and experience is proper, but it has its limits. The time when enthusiasm warms to exalted labor is frittered away in work that may never see the light, because the conclusions arrived at may differ from received opinions. It requires a peculiar moral conformation to become a voluntary iconoclast, but under proper conditions such characters are what the axemen are to the forest, leveling, that others may live. As I maintained at the opening of this discourse, that nothing ever was created perfect, so no one can ever be possessed of the whole truth on any subject. How painfully is this true of medicine and our specialty. Every century has had its authorities, from *Aesculapius* to *Hippocrates*, from *Hippocrates* to *Galen*, and from *Galen* down to the host who now reign in this department. The accepted authority of one age becomes the absurdity of the next. This is probably due to the fact that we lean on men rather than on the thing represented by men. If we could divest a supposed fact of personality, there would be more prospect of justice being done. But there is always the mob of mediocrity at the heels of science. They applaud when it is

fashionable to applaud, and at the first reverse go over to the new candidate or new theory with the same headlong enthusiasm, and the truth that may have been enlosed is measurably lost.

The praeticee of medicine has been revolutionized over and over again. That of Æseulapius giving way to Hippocrates, the Dogmatists to the Empiries, the Methodists to the Pneumatics and Eclecties. Theory followed theory, and so it has eontinued to the present. Names have risen from obscurity to splendor, and live now only in history; their authority died with them. Thus will it ever be. The most that any of us can do is to lay one stone in the building, conscious, in resting from our labors, that we have not been a drone in the busy world of intellectual aetivity. The fact that our efforts are all crippled by our human imperfeetions should lead to an humble appreciation of our importanee. Dogmatism is nowhere so much out of place as in scientifie work. The true scientist is never otherwise than liberal. The egotistical assumption of superiority marks shallow superfieiality.

Science should have no secrets. The result of intelligent labor should be free to all, spread broadcast by pen and press, that the people may grow to the standard of their leaders. The temptation is always present to reserve the result of our best thought for our own selfish ends; but that this is wrong needs no argument. Elevated prineiples of action should always be the motive power of the professional man. Illiberality is out of place. As scienee is an heir-loom of the race, it should never be confined to the seleet few, and all others debarred from entering its portals. No broad, liberal-minded thinker will be guilty of this; but, unfortunately, the world is not largely made up of that class, and the professional world is remarkably defieient in this particular. I had hoped that Dentistry, the youngest born of the professions, would have set a noble example in this respect; but until she opens her doors freely, with-

out regard to sex or color, she deserves but little credit for her spasmodic efforts in this direction.

We Americans are censured as a nation given up to practical ideas solely; that our æsthetic tastes are uneducated; that our art is unworthy the attention of the connoisseur of Europe. This may be true, and in the past undoubtedly was. Upon the same reasoning, as applied to the rude beginnings of professional life, we ought to expect the practical first in all nations. Indeed, this has always been true of nations and individuals. He, then, who censures is ignorant of the first principles of growth. The cultivation of art is of vital importance to dentistry. It does not necessarily follow that we are to add the study of drawing and painting to the curriculum of the schools; but I feel very certain that if this addition were made, we should graduate far superior dentists. Our whole practice is art in miniature. As the ear can be cultivated to detect the most delicate differences in sound, so the eye can also be trained to shades of beauty and color. The dentist should omit no opportunity thus to qualify himself. The contemplation of a master-work in painting or sculpture refines and purifies, produces an aspiration, an exaltation of the inner life. The perfect work of art is an inspiration forever. The man who approaches the practice of dentistry with no æsthetic taste must remain always in the vestibule of the temple. He can never enter the inner sanctuary. The terrible monstrosities that everywhere disgust and make the human face horrible to look upon, are the work of just such uncultivated workers. Where is that fine sense of harmony, of color, that adaptation of form, that recognition of spirituality, if I may use the term, in inanimate things, and the harmonial relations to that higher spirituality in the human patient; that fine cultivated taste that rejects all meretricious show; that would not elevate the work of the shop at the expense of taste; that would not build up golden tombstones over the sepulchre of refinement, and make them an advertising medium of their

wares; but would, on the other hand, blend usefulness with beauty, and restore the divinity of the human countenance to its original harmony of conception.

I have dwelt mainly on general principles: but there are other and by no means minor points that should especially claim your attention. You have left your homes for the fulfillment of a great work. It is to be supposed you have carefully weighed the consequences of your action—carefully analyzed your capabilities for the position you are to occupy. You will find much in the future that will call forth all your latent and cultivated abilities; meet them all with true courage. The present course will be to you full of difficulty. You will encounter obstacles never, perhaps, met with before, all the more difficult from their novelty. But these will be overcome by persistent endeavor. The time is all too short, and in the attempt to grasp many things, the untrained student often fails to hold on to anything. In your studies, aim to select the central idea and reject the verbiage that so frequently buries thought. Grasp at the substance rather than the shadow. Do not suppose you can in four months commit all the words to be found in the works, or be able to digest everything that you listen to. The most you may hope to acquire will be a basis for future cultivation. I would warn you to guard with jealous care your physical and mental strength. Do not wreck your powers on midnight study or evening revels; but train yourselves to work at special hours, and take relaxation in that way that will leave no after sting. Your responsibility to yourselves, first, is great. To those who sent you here and are anxiously watching your career, still greater, and the responsibility to the profession of your choice overwhelming in its importance. The work of the future devolves on you. As you cultivate yourselves, so will your profession be elevated, and in proportion as this is done will you be ennobled. The path you are to tread is worn by the feet of thousands. The same trials, the same difficulties, the same dis-

encouragements, have all been felt and outlived. You are dwelling at the base of the mountain of life. The vernal beauty of cultivated landscapes surround you; difficulties are mellowed by distance. You revel in the hopeful anticipations of life. As you advance your outlook will become more extended. You will have passed over chasms and surmounted precipitous rocks. You will have learned, to a degree, to overcome and to conquer. You ascend still higher, and as you cast your view back at middle life, the landscape of youth has lost its clearly-defined character, and you are on the border land beyond which the verdure of the beginning is lost in sterility. Foree, aspiration, ambition, all have largely ceased as impelling centres of action. As you still further go forward you enter the mist of declining years where alone memory holds you to the past; but with the arrival at the summit, surrounded by physical desolation, you have still that grand outlook clear up through the blue ether to the eternal work of the real world where your training will never be lost. Such, in brief, is the record of life. It teaches us the lesson that the work we have to do must be accomplished before our energies are damped. I hold that he who has failed to make his mark in the world before middle life, will ever after occupy a subordinate position. There are, I am aware, exceptions, but the rule will hold good. The fact should stimulate to exertion—to work—that our ideal may be reached ere the shadow falls on our spirits.

The close of the hour of the beginning warns me that my work draws to a finish. In the coming contest you have my warmest and most earnest wishes for success. Register your ideal on high, environ it with lofty aspirations and noble ambitions, and the hour of the ending will correlate with that of the beginning, and you will go forth crowned with the laurel of victory. Deep responsibilities rest upon us. In your failure may lie our disgrace, but I do not fear it. With an earnest faith in the possibilities of the human mind, we have accepted the trust and will work

on to its accomplishment. The months will rapidly pass by. The winter of work will give way to the springtime of rest. You will have entered the grand corridor that leads to the temple of life's activities, and there at the altar of a great accomplishment you should renew your vows of devotion to your profession, to defend your Alma Mater from all aspersions on her fair fame, to be one of that ever increasing number who worship at the shrine of a perfected civilization, to make the record of your life so brilliant that your age will know that you have lived, and have neither lived nor labored in vain.